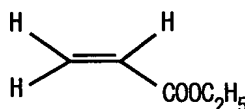
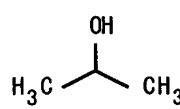
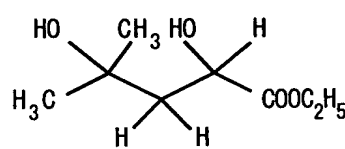
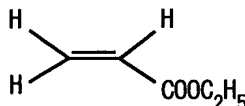
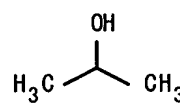
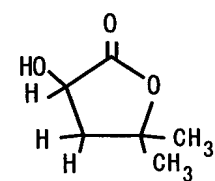
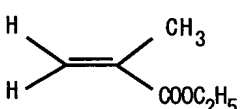
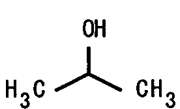
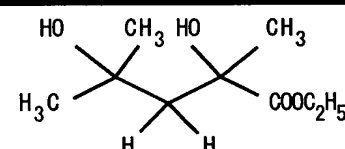
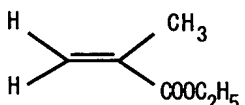
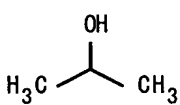
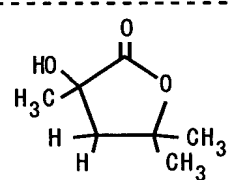
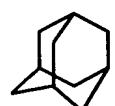

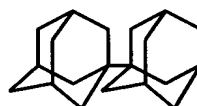
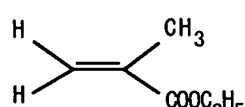
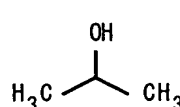
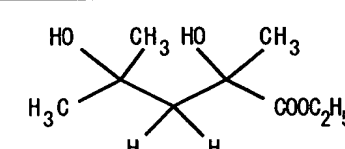
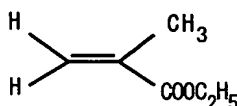
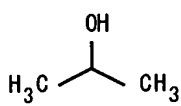
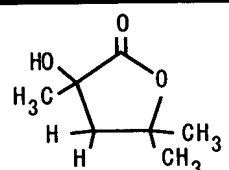
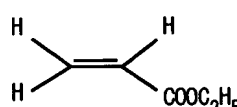
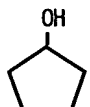
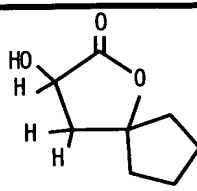
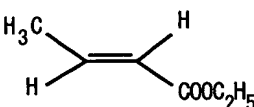
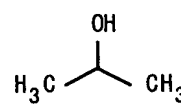
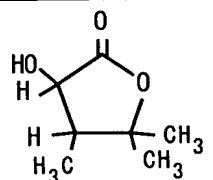
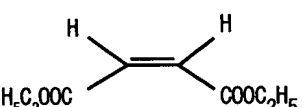
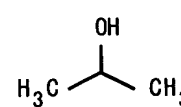
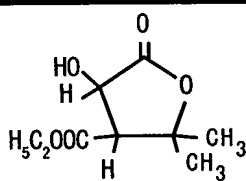
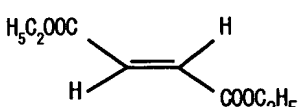
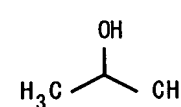
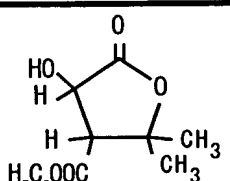
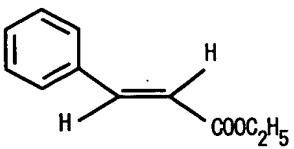
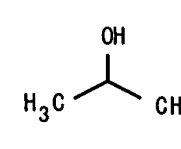
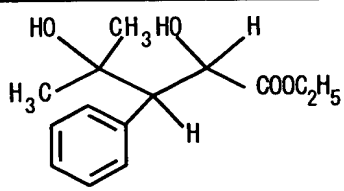
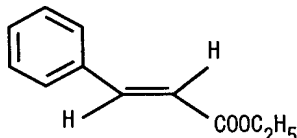
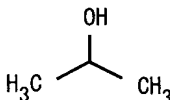
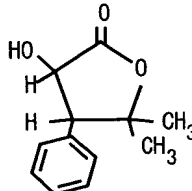
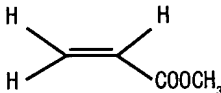

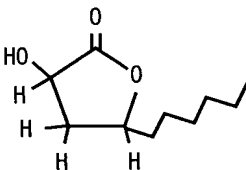
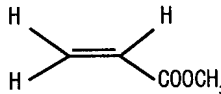
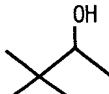
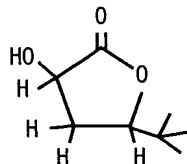
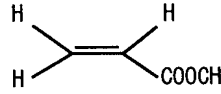
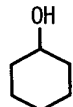
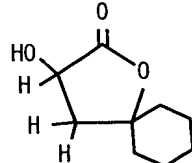
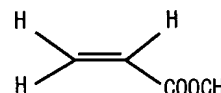

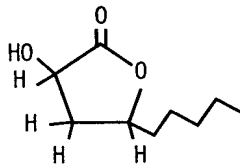
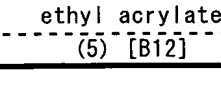
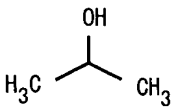
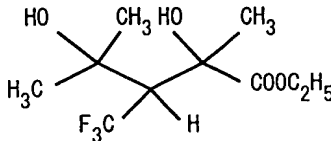
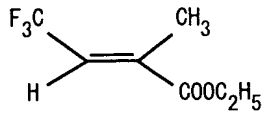
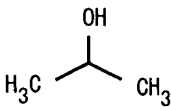
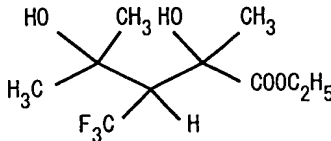
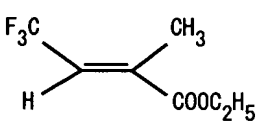
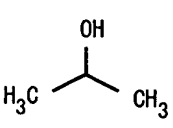
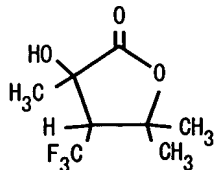
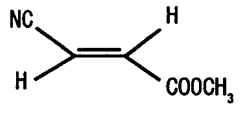
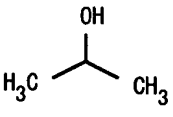
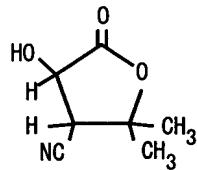
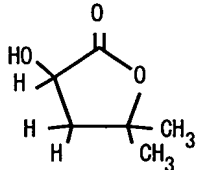
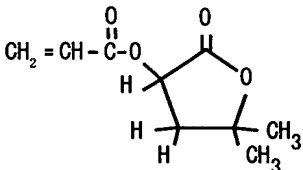
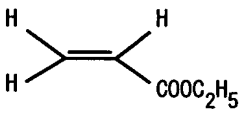
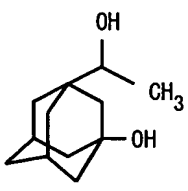
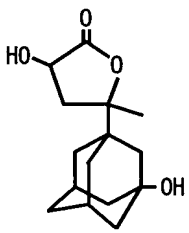
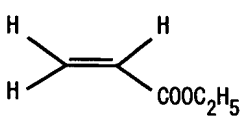
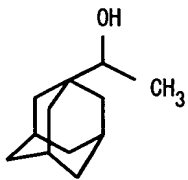
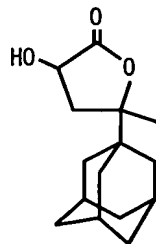
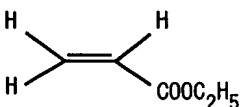
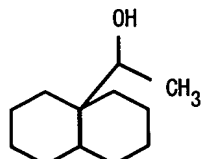
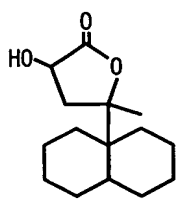
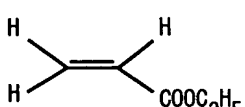
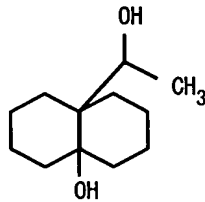
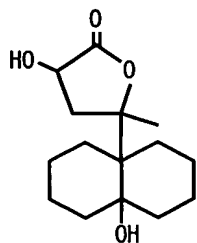
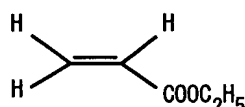
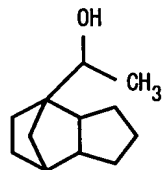
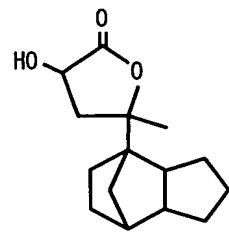
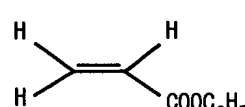
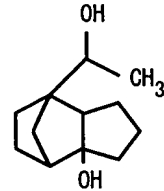
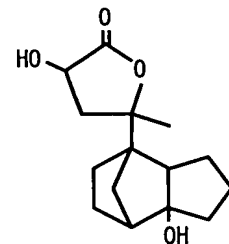


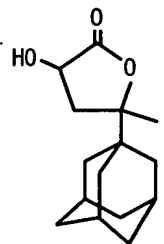
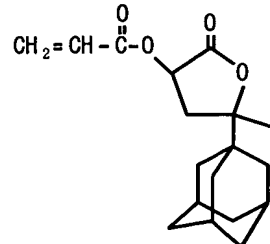
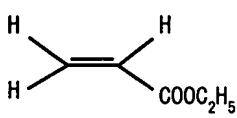

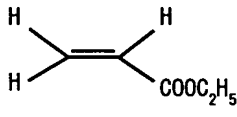

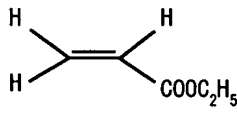
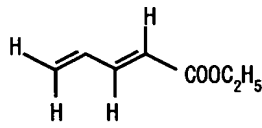
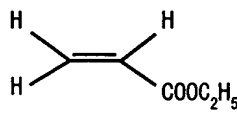
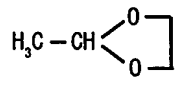
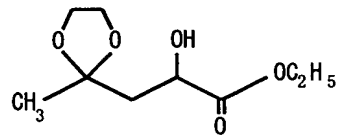
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|-----------|-------------|---|---|---|
| ex. 1, 2 | 2 |  |  |  |
| | | ethyl acrylate | 2-propanol | ethyl 2,4-dihydroxy-4-methylpentanoate |
| | (3) [B11] | (2) [A11] | (4) 1,3-dihydroxy compound | |
| 3 | |  |  |  |
| | | ethyl acrylate | 2-propanol | α-hydroxy-γ,γ-dimethyl-γ-butyrolactone |
| | (5) [B12] | (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative | |
| ex. 3 | 2 |  |  |  |
| | | ethyl methacrylate | 2-propanol | ethyl 2,4-dihydroxy-2,4-dimethylpentanoate |
| | (3) [B11] | (2) [A11] | (4) 1,3-dihydroxy compound | |
| 3 | |  |  |  |
| | | ethyl methacrylate | 2-propanol | α-Hydroxy-α,γ,γ-trimethyl-γ-butyrolactone |
| | (5) [B12] | (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative | |
| ex. 4 | 20 |  |  |  |
| | | adamantane | adamantane | biadamantyl |
| | (14b) [B22] | (14a) [A32] | (20) coupling product | |
| ex. 5, 6 | 2 | ethyl acrylate | 2-propanol | ethyl 2,4-dihydroxy-4-methylpentanoate |
| | | (3) [B11] | (2) [A11] | (4) [1,3-dihydroxy compound] |
| | 3 | ethyl acrylate | 2-propanol | α-hydroxy-γ,γ-dimethyl-γ-butyrolactone |
| ex. 7 | | (5) [B12] | (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| | 2 |  |  |  |
| | | ethyl methacrylate | 2-propanol | ethyl 2,4-dihydroxy-2,4-dimethylpentanoate |
| | (3) [B11] | (2) [A11] | (4) 1,3-dihydroxy compound | |

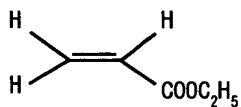
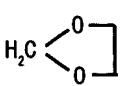
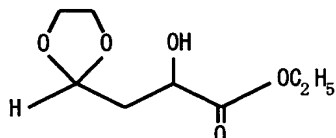
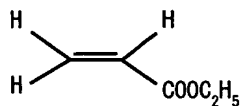

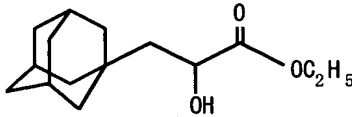
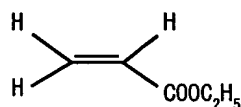

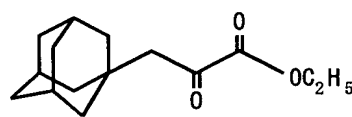
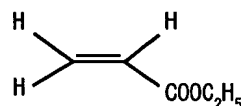

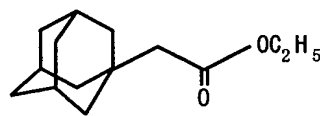
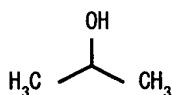
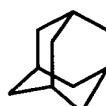
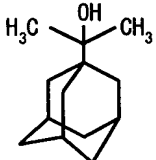
| Claim No. | | | |
|-----------|---|---|---|
| ex. 7 |  ethyl methacrylate (5) [B12] |  2-propanol (2) [A11] |  α -Hydroxy- α,γ,γ -trimethyl- γ -butyrolactone (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 8 |  ethyl acrylate (5) [B12] |  cyclopentanol (2) [A11] |  3-hydroxy-2-oxo-1-oxaspiro[4.4]nonane (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 9 | 4 | Dissolution of (6a) α -hydroxy- γ,γ -dimethyl- γ -butyrolactone | (7) β -Hydroxy- γ,γ -dimethyl- γ -butyrolactone |
| ex. 10 |  ethyl crotonate (5) [B12] |  2-propanol (2) [A11] |  α -Hydroxy- β,γ,γ -trimethyl- γ -butyrolactone (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 11 |  diethyl maleate (5) [B12] |  2-propanol (2) [A11] |  α -Hydroxy- β -ethoxycarbonyl- γ,γ -trimethyl- γ -butyrolactone (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 12 |  diethyl fumarate (5) [B12] |  2-propanol (2) [A11] |  α -Hydroxy- β -ethoxycarbonyl- γ,γ -trimethyl- γ -butyrolactone (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 13 |  diethyl cinnamate (3) [B11] |  2-propanol (2) [A11] |  ethyl 2,4-dihydroxy-4-methyl-3-phenylpentanoate (4) 1,3-dihydroxy compound |

| Claim No. | | | |
|-----------|---|---|--|
| ex. 13 |  <p>diethyl cinnamate</p> |  <p>2-propanol</p> |  <p>α-Hydroxy-β-phenyl-γ,γ-dimethyl-γ-butyrolactone</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 14 |  <p>methyl acrylate</p> |  <p>octanol</p> |  <p>γ-hexyl-α-hydroxy-γ-methyl-γ-butyrolactone</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 15 |  <p>methyl acrylate</p> |  <p>3,3-dimethyl-2-butanol</p> |  <p>γ-t-butyl-α-hydroxy-γ-methyl-γ-butyrolactone</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 16 |  <p>methyl acrylate</p> |  <p>cyclohexanol</p> |  <p>3-hydroxy-2-oxo-1-oxaspiro[4.5]decane</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 17 |  <p>methyl acrylate</p> |  <p>hexanol</p> |  <p>α-hydroxy-γ-pentyl-γ-butyrolactone</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 18 |  <p>ethyl acrylate</p> |  <p>2-propanol</p> |  <p>α-hydroxy-γ,γ-dimethyl-γ-butyrolactone</p> |
| 3 | (5) [B12] | (2) [A11] | (6) α -hydroxy- γ -butyrolactone derivative |
| ex. 19 |  <p>ethyl 4,4,4-trifluoro-2-butenate</p> |  <p>2-propanol</p> |  <p>ethyl 4,4,4-trifluoro-3-hydroxy-2-(1-hydroxy-1-methylethyl)butyrate</p> |
| 2 | (5) [B12] | (2) [A11] | (4) 1,3-dihydroxy compound |

| Claim No. | | |
|-----------|--|--|
| ex. 19 | <div>  <p>ethyl 4,4,4-trifluoro-2-butenate</p> </div> <div>  <p>2-propanol</p> </div> | <div>  <p>β-trifluoromethyl-α-hydroxy-γ,γ-dimethyl-γ-butyrolactone</p> </div> |
| 3 | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 20 | <div>  <p>methyl 3-cyanoacrylate</p> </div> <div>  <p>2-propanol</p> </div> | <div>  <p>β-cyano-α-hydroxy-γ,γ-dimethyl-γ-butyrolactone</p> </div> |
| 3 | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 21 | <div>  <p>α-hydroxy-γ,γ-dimethyl-γ-butyrolactone</p> </div> | <div>  <p>α-acryloyloxy-γ,γ-dimethyl-γ-butyrolactone</p> </div> |
| ex. 26 | <div>  <p>ethyl acrylate</p> </div> <div>  <p>3-hydroxy-α-methyl-1-adamantanemethanol</p> </div> | <div>  <p>γ-(3-hydroxyadamant-1-yl)-α-hydroxy-γ-methyl-γ-butyrolactone</p> </div> |
| 3 | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 27 | <div>  <p>ethyl acrylate</p> </div> <div>  <p>α-methyl-1-adamantanemethanol</p> </div> | <div>  <p>γ-(1-adamanty)-α-hydroxy-γ-methyl-γ-butyrolactone</p> </div> |
| 3 | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |

| Claim No. | | | |
|-----------|--|--|---|
| ex. 28 | |   <p>ethyl acrylate α-methyl-4a-decalinmethanol</p> |  <p>γ-(4a-decalinyl)-α-hydroxy-γ-methyl-γ-butyrolactone</p> |
| 3 | | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 29 | |   <p>ethyl acrylate 8a-hydroxy-α-methyl-4a-decalinmethanol</p> |  <p>γ-(8a-hydroxydecalin-4a-yl)-α-hydroxy-γ-methyl-γ-butyrolactone</p> |
| 3 | | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 30 | |   <p>ethyl acrylate α-methyl-2-tricyclo[5.2.1.0².⁶]decanemethanol</p> |  <p>α-hydroxy-γ-methyl-γ-(2-tricyclo[5.2.1.0².⁶]decanyl)-γ-butyrolactone</p> |
| 3 | | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |
| ex. 31 | |   <p>ethyl acrylate 6-hydroxy-α-methyl-2-tricyclo[5.2.1.0².⁶]decanemethanol</p> |  <p>α-hydroxy-γ-methyl-γ-(6-hydroxytricyclo[5.2.1.0².⁶]decan-2-yl)-γ-butyrolactone</p> |
| 3 | | (5) [B12] (2) [A11] | (6) α-hydroxy-γ-butyrolactone derivative |

| Claim No. | | | |
|-----------|----|--|--|
| ex. 32 | |  <p>γ-(1-adamantyl)-α-hydroxy -γ-methyl-γ-butyrolactone</p> |  <p>α-acryloyloxy-γ-(1-adamantyl) -γ-methyl-γ-butyrolactone</p> |
| | | | |
| ex. 33 | 2 |  <p>ethyl acrylate</p> <p>(3) [B11]</p> |  <p>n-propyl alcohol</p> <p>(2) [A11]</p> |
| | 3 |  <p>ethyl acrylate</p> <p>(5) [B12]</p> |  <p>n-propyl alcohol</p> <p>(2) [A11]</p> |
| | 14 |  <p>ethyl acrylate</p> <p>(3a) [B13]</p> |  <p>ethyl sorbate</p> <p>(11) conjugated unsaturated compound</p> |
| | 15 |  <p>ethyl acrylate</p> <p>(3) [B11]</p> |  <p>2-methyl-1,3-dioxolane</p> <p>(12) [A13]</p> |
| ex. 34 | | |  <p>α β-hydroxyacetal compound</p> |
| | | | <p>(13) β-hydroxyacetal compound</p> |

| Claim No. | | | | |
|--------------|----|---|---|---|
| ex. 35 | |  |  |  |
| | 15 | ethyl acrylate (3) [B11] | 1,3-dioxolane (12) [A13] | α β -hydroxyacetal compound (13) β -hydroxyacetal compound |
| ex. 36 37 | 16 |  |  |  |
| | | ethyl acrylate (3) [B11] | adamantane (14) [A31] | ethyl 3-(adamant-1-yl)-2-hydroxypropionate (15) [hydroxy compound] |
| | 17 |  |  |  |
| | | ethyl acrylate (3b) [B14] | adamantane (14) [A31] | ethyl 3-(adamant-1-yl)-2-oxopropionate (17) carbonyl compound |
| ex. 38 | 18 |  |  |  |
| | | ethyl acrylate (3c) [B15] | adamantane (14) [A31] | ethyl 1-adamantaneacetate (18) compound having an electron attracting group |
| ex. 38 | |  |  |  |
| | 19 | 2-propanol (2) [A11] | adamantane (14) [B21] | α,α -dimethyl-1-adamantanemethanol (19) alcohol |